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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,559	12/19/2005	Jae-Hyuk Oh	60,469-241; OT-5178 LAB	9936
7590 Theodore W Olds Carlson Gaskey & Olds Suite 350 400 W Maple Road Birmingham, MI 48009			EXAMINER KRUER, STEFAN	
			ART UNIT 3654	PAPER NUMBER
			MAIL DATE 04/30/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,559	Applicant(s) OH ET AL.	
	Examiner Stefan Krueer	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 3, 6 - 8 and 11 is/are rejected.
- 7) ☒ Claim(s) 4 - 5 and 9 - 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Machine Translation (JP 07215634A)</u> . |

DETAILED ACTION

Specification

Abstract

The amendments to the abstract filed 31 March 2008 are hereby acknowledged.

Disclosure

The disclosure remains objected to under 37 CFR 1.71, in that the following items are not adequately disclosed and therefore concretely understood:

The upper and lower crossing members (32) are able to traverse freely in a direction from one surface (46) to another surface (48) of the respective upper- and lower guide members (38), whereby the elevator car is supported by upper and lower bars (40) that are intermediate of the upper- and lower guide members (38), therein forming a single elevator car frame comprising the elevator car, the upper- and lower bars and the upper- and lower guide members.

Consequently, the elevator car frame is evidently "floating" or "suspended" by not fully explained means, in that, as understood, the opposing electromagnets are to only cause lateral centering of the elevator car frame; however, the action of the opposing electromagnets evidently lifts the car-side electromagnet (26), and thereby the car (frame), to a vertical equilibrium as well ("... tends to move vertically with the car").

Additionally, a control (30) depicted in Figure 1 as a box is not adequately described commencing on Page 5, Line 21. Generalizations with respect to "sensing (sic) the amount of force at any point..." and "... the control.... can vary the magnitude of the repulsive force based upon the speed and the load as appropriate..." are likely valid, but they are not adequately reviewed. Furthermore, in that the opposing electromagnets are to counter lateral vibrations, the electromagnets are therefore to provide a damping effect and not solely a re- or counter-positioning effect.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

Objections

The disclosure remains objected to because the bars (40) of structure similar to that of an I-beam are depicted in Figure 3 as mounted external a lateral side of the car, thereby of unique embodiment(s) to that of the preceding figures and as understood.

Appropriate correction(s) is required.

Drawings

The drawings remain objected to under 37 CFR 1.83(a) because of discrepancy in the mounting of the bars (40) as reviewed above in Figure 3, wherein the alternative embodiment of the bars is depicted as mounted external a lateral side of the car. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 3, 6 – 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over He et al (6,305,502) in view of Kurosawa et al (JP-07215634).

Claims 1 and 8, He et al disclose their elevator system (Fig. 1) comprising:

- car (202, Fig. 8); and
- two spaced car follower portions (118) each having an electromagnet (216), and said car follower portions each being provided with guide structure (42) for moving along a guide rail (25) in an elevator hoistway, said electromagnets on said car and said car follower portions interacting to force said elevator car to be centered between said car follower portions;

however, He et al disclose their car as having a plurality of opposed reaction plates (210), wherein their electromagnet (216) of their car follower portions face a corresponding one of their reaction plates to provide an attractive force in lieu of a repulsive force.

Attention is directed to Kurosawa et al who teach their plurality of opposed electromagnets (10) of their car (1) and their car portions (12) interacting to provide a repulsive force as an alternative (Claim 4, attached machine translation as well), more responsive means to the system of He et al for reducing vibrations.

It would have been obvious to one of ordinary skill in the art to modify the reference of He et al with the teaching of Kurosawa et al for enhanced performance.

Claim 2, He et al disclose their car follower portions are interconnected (116) to move together as a single car follower.

Claim 3, He et al disclose their car is free to move relative to said car follower in a horizontal plane but constrained to move with said car follower in a vertical direction.

Claim 6, He et al disclose a plurality of electromagnets associated with each of their car follower portions.

Claims 7 and 11, He et al disclose wherein a control system (140, Fig. 4) controls the field strength of said electromagnets to in turn control an attractive force.

Attention is directed to Kurosawa et al who teach a control system (8, 22) that controls the field strength of their electromagnets to in turn control a repulsive force for their electromagnets, wherein their repulsive force affords responsiveness.

It would have been obvious to one of ordinary skill in the art to modify the reference of He et al with the teaching of Kurosawa et al for enhanced performance.

Allowable Subject Matter

Claims 4 – 5 and 9 – 10 are objected to as being dependent upon a rejected base claim(s), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, as well as to overcome the objections to the disclosure, as set forth in this Office action.

Response to Arguments

Applicant's arguments filed 31 March 2008 have been fully considered but they are not persuasive.

The rejections of the previous office action were in response to the claim language. Applicant has not traversed the rejections other than by stating that it does not appear to applicant that the reference of Kurosawa et al discloses a repulsive force with respect to their magnets and furthermore, if Kurosawa et al did teach such, the base reference of He et al discloses "...several interactive magnets facing several different directions" wherein "... there is no showing that the combination of all of these magnets would operate properly with repulsive forces..."

As noted above, Kurosawa et al disclose the use of repulsive force in the alternative. Furthermore, the disclosure of He et al disclose that their magnets may be

mounted in a variety of opposing positions, in pairs, to provide their desired "... bi-directional (push/pull) motion" (Col. 3, L. 16 - 25 and 42).

The use of opposing sets of pairs of magnets providing attractive or repulsive forces, wherein either or both of the magnets comprising each pair of magnets are individually controlled, as disclosed by He et al and taught further by Kurosawa et al, would afford the "... bi-directional (push/pull) motion" of He et al as known in the art.

With respect to the objections to the disclosure and drawings, the matter of the depicted mounting of bar (40) on the elevator car remains outstanding. Applicant's explanations with respect to the suspension of the elevator car and the "box" comprising the controller and the brief overview of its operations in view of the generalized purpose and operation of the magnets are not sufficiently conclusive.

Therefore, the rejections based on the prior art of record of the previous office action remain.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jamieson et al (5,864,102) and Roberts et al (5,308,938) are cited for references of elevator systems having electromagnetic vibration suppression means.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Kruer whose telephone number is 571.272.5913. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571.272.6856. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

/Stefan Kruer/

Examiner, Art Unit 3654

23 April 2008

/Peter M. Cuomo/

Supervisory Patent Examiner, Art Unit 3654